

Notice of Allowability

Application No.

10/616,045

Examiner

Michael C. Henry

Applicant(s)

SEARS ET AL.

Art Unit

1623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/28/04.
2. ☒ The allowed claim(s) is/are 1-15.
3. ☐ The drawings filed on _____ are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

JAMES O. WILSON
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1600

REASONS FOR ALLOWANCE

Applicant's arguments files 06/28/04 and declaration filed 10/20/03 have been fully considered and are found to be persuasive. The following is an examiner's statement of reasons for allowance: The examiner has found claims 1-15 to be unobvious over the prior art of record and therefore to be allowable over the prior art of record. The present invention relates to a process for the preparation of cellulose acetate comprising: mercerizing cellulosic material derived from hardwood in a caustic mercerizing solution to produce mercerized hardwood cellulose; reacting the mercerized hardwood cellulose with an alkylene oxide hydroxyalkylating agent to a degree of substitution of the cellulose ranging from 0.04 to 0.15 to form a reactive mercerized hardwood cellulose, said degree of substitution being insufficient to render said mercerized hardwood cellulose appreciably soluble in water; recovering said reactive substantially water insoluble mercerized hardwood cellulose and acetylating it at a temperature of at least about 30°C to form cellulose acetate." The relevant prior art document (US 4,399,275) to this invention discloses a process for the preparation of cellulose acetate comprising mercerizing cellulosic material in a caustic mercerizing solution to produce mercerized cellulose, reacting the mercerized cellulose with an alkylene oxide hydroxyalkylating agent to form a mercerized cellulose, recovering and acetylating it to form cellulose acetate. However, though the process of the prior art document also involves the preparation of cellulose acetate, the process claimed in the instant invention uses hardwood cellulosic material as opposed to softwood cellulosic material (used in the prior art) and different temperature ranges that are unobvious to those of the prior art. Furthermore, the use of hardwood cellulosic material offers the following significant and unexpected advantages over softwood: 1) it achieves a desirable 6.5 triacetate haze with only 10% PO; 2) the reaction could be conducted at 32°C

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which did not require special cooling devices; and 3) the reaction proceeds to completion in a commercially reasonable 180 minutes. Moreover, applicant's claimed method of preparation is not obvious over the prior art and is not suggested or disclosed in the prior art document.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael C. Henry whose telephone number is 571-272-0652.

The examiner can normally be reached on 8:30 am to 5:00 pm; Mon-Fri. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James O. Wilson can be reached on 571-272-0661. The fax phone number for the organization where this application or proceeding is assigned is 703 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 308-1235.

MCH

August 4, 2004.